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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/334,891	06/17/1999	GUIDO GHISOLFI	32461/GM/IP	5842

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VIA MERA VIGLI 16
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EXAMINER

PATTERSON, MARC A

ART UNIT	PAPER NUMBER
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1772

DATE MAILED: 11/10/2003

25

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/334,891	Applicant(s) GHISOLFI, GUIDO	
	Examiner Marc A Patterson	Art Unit 1772	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 July 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16-21 and 23-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 16-21 and 23-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: |

DETAILED ACTION

WITHDRAWN REJECTIONS

1. The 35 U.S.C. 112 second paragraph rejection of Claims 16, 18, 25 and 36, of record on page 2 of the previous Action, are withdrawn.

The 35 U.S.C. 103(a) rejection of Claims 16 – 17 and 23 as being unpatentable over Colombo (U.S. Patent No. 5,300,748) in view of Hayashi (U.S. Patent No. 5,000,991), of record on page 4 of the previous Action, 35 U.S.C. 103(a) rejection of Claims 18 – 21 and 25 – 27 as being unpatentable over Colombo (U.S. Patent No. 5,300,748) in view of Hayashi (U.S. Patent No. 5,000,991) and further in view of Hubbard et al (WO 97/47694), of record on page 7 of the previous Action and 35 U.S.C. 103(a) rejection of Claims 28 and 34 as being unpatentable over Colombo (U.S. Patent No. 5,300,748) in view of Hayashi (U.S. Patent No. 5,000,991) and further in view of The Encyclopedia of Polymer Science and Engineering. (Volume 12, page 214, 1985), of record on page 8 of the previous Action, are withdrawn.

REPEATED REJECTIONS

2. The 35 U.S.C. 112 second paragraph rejection of Claim 17, of record on page 3 of the previous Action, is repeated.

NEW REJECTIONS

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 16 – 17, 23 – 24, 29 – 33 and 35 – 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roulin et al (U.S. Patent No. 5,508,075) in view of Hayashi (U.S. Patent No. 5,000,991) and Nankee et al (U.S. Patent No. 4,543,364).

With regard to Claims 16 – 17 and 23, Roulin et al disclose a container for food (column 3, lines 33 – 40) comprising a multi – layer material (column 6, lines 17 – 24) the material comprising a layer of a foamed sheet comprising polyester (column 3, lines 54 – 63), and, adhered to the foamed sheet, a film of polyester resin which is heat – sealable column 3, lines 54 – 63); the multi – layer material comprises creased lines (column 7, lines 4 – 14). With regard to the claimed aspect of the polyester being ‘aromatic’, Roulin et al teach the use of polyethylene terephthalate as a polyester of the invention (column 5, lines 13 – 19); the claimed aspect of the polyester being ‘aromatic’ therefore reads on Roulin et al. Roulin et al fails to disclose a foamed sheet having a density of less than 700 kg/m^3 and a container which is recyclable.

Hayashi teaches the use of a foamed sheet having a density of less than 700 kg/m^3 in the making of a laminate of foamed and non – foamed resin, for the purpose of maintaining good heat insulating properties (column 9, lines 1 – 19). The desirability of providing for a density of less than 700 kg/m^3 in Colombo, which is a laminate of foamed and non – foamed resin, would therefore be obvious to one of ordinary skill in the art.

Nankee teaches that it well known in the art to use a recyclable polyester in the making of containers (column 1, lines 5 – 40) for the purpose of obtaining a container which is clear

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(column 1, lines 41 – 45). The desirability of providing for a recyclable polyester in Nankee would therefore be obvious to one of ordinary skill in the art.

It therefore would have been obvious for one of ordinary skill in the art at the time Applicant's invention was made to have provided for a density of less than 700 kg/m^3 in Roulin et al in order to maintain good heat insulating properties as taught by Hayashi and to have provided for a recyclable polyester (therefore a recyclable container) in Roulin et al in order to obtain a container which is clear as taught by Nankee.

Roulin also fail to disclose a polyester film having a melting point of 50 to 200 degrees Celsius. However, Roulin discloses a film having a melting point greater than 500 degrees Fahrenheit (column 6, lines 46 – 50). Therefore, the melting point would be readily determined through routine optimization by one having ordinary skill in the art depending on the desired end use of the product. It therefore would be obvious for one of ordinary skill in the art to vary the melting point, since the melting point would be readily determined through routine optimization by one having ordinary skill in the art depending on the desired end result as shown by Roulin et al. *In re Boesch and Slaney*, 205 USPQ 215 (CCPA 1980).

With regard to Claim 29, the polyester film is made to adhere to the foamed sheet by hot lamination (heat sealing; column 6, lines 17 – 23).

With regard to Claims 30 – 31, as discussed above, the foamed sheet has a density less than 700 kg/m^3 .

With regard to Claims 32 – 33, Roulin et al fails to disclose a container having a thickness from 0.2 to 3 mm. However, Roulin et al disclose a container having a thickness of greater than 200 microns (layer thickness of 200 microns; column 8, lines 38 – 48). Therefore,

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the thickness would be readily determined through routine optimization by one having ordinary skill in the art depending on the desired end use of the product. It therefore would be obvious for one of ordinary skill in the art to vary the thickness, since the thickness would be readily determined through routine optimization by one having ordinary skill in the art depending on the desired end result as shown by Roulin et al, in the absence of unexpected results. *In re Boesch and Slaney*, 205 USPQ 215 (CCPA 1980).

With regard to Claims 24 and 35 – 37, Roulin et al fail to disclose a container in which the heat sealable film comprises two layers, and in which the polyester film is adhered on two sides of the foamed sheet. However, Roulin et al disclose a container in which the heat sealable film comprises one layer, and in which the polyester film is adhered on one side of the foamed sheet, as discussed above. It would have been obvious to one having ordinary skill in the art at the time Applicant's invention was made to have provided for additional layers, adhered to additional sides of the sheet, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

With regard to the claimed aspect in Claims 24 and 36 – 37 of the film being 'coextruded,' the scope of the claims falls within the limitations of Roulin et al, Hayashi and Nankee as discussed above. The method of making the container (product – by – process) is given little patentable weight. Applicant would need to demonstrate, by verified showing, the unexpected advantages accruing from the method of making as claimed.

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5. Claims 18 – 21 and 25 – 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roulin et al (U.S. Patent No. 5,508,075) in view of Hayashi (U.S. Patent No. 5,000,991) and Nankee et al (U.S. Patent No. 4,543,364) and further in view of Hubbard et al (WO 97/47694).

Roulin et al, Hayashi and Nankee disclose a multi – layer material comprising a heat – sealable film as discussed above. With regard to Claims 18 – 19 and 21 and 25 – 27, Roulin et al, Hayashi and Nankee fail to disclose a heat – sealable film which is coated with potassium or lithium polysilicates, and having an oxygen permeation rate lower than $70 \text{ ml/m}^3/24\text{h/atm}$.

Hubbard et al teach the metallization of polyester with lithium polysilicate (page 10, lines 5 – 24) for the purpose of obtaining a film having an oxygen permeation rate lower than $70 \text{ ml/m}^3/24\text{h/atm}$ (page 21, lines 17 – 30). The desirability of providing for metallization with lithium polysilicate in Roulin et al, Hayashi and Nankee, which is a film for containing food, would therefore be obvious to one of ordinary skill in the art.

It therefore would have been obvious for one of ordinary skill in the art at the time Applicant's invention was made to have provided for lithium polysilicate (which is also silicon oxide) in Roulin et al, Hayashi and Nankee in order to obtain a film having an oxygen permeation rate lower than $70 \text{ ml/m}^3/24\text{h/atm}$ as taught by Hubbard et al.

With regard to Claim 20, Hubbard et al fail to disclose an oxygen permeation rate lower than $0.3 \text{ ml/m}^3/24\text{h/atm}$. However, Hubbard et al disclose an oxygen permeation rate lower than $0.3 \text{ ml/m}^3/24\text{h/atm}$. Therefore, the oxygen permeation rate would be readily determined through routine optimization by one having ordinary skill in the art depending on the desired end use of the product. It therefore would be obvious for one of ordinary skill in the art to vary the oxygen

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permeation rate, since the oxygen permeation rate would be readily determined through routine optimization by one having ordinary skill in the art depending on the desired end result as shown by Hubbard et al. *In re Boesch and Slaney*, 205 USPQ 215 (CCPA 1980).

6. Claims 28 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roulin et al (U.S. Patent No. 5,508,075) in view of Hayashi (U.S. Patent No. 5,000,991) and Nankee et al (U.S. Patent No. 4,543,364) and further in view of The Encyclopedia of Polymer Science and Engineering. (Volume 12, page 214, 1985).

Roulin et al, Hayashi and Nankee disclose a multi – layer material comprising a heat – sealable film as discussed above. With regard to Claims 28 and 34, Roulin et al, Hayashi and Nankee fail to disclose a heat sealable film which is a polyethylene terephthalate – isophthalate copolymer.

The Encyclopedia of Polymer Science and Engineering (Volume 12, page 214, 1985) teaches that it is known in the art to use polyethylene terephthalate – isophthalate copolymer instead of polyethylene terephthalate as the outer layer of a heat sealable polyester film for the purpose of obtaining a film having a lower softening and melting point. The desirability of providing for polyethylene terephthalate – isophthalate copolymer in Roulin et al, Hayashi and Nankee, which comprises a heat – sealable polyester film, would therefore be obvious to one of ordinary skill in the art.

It would therefore have been obvious to one of ordinary skill in the art to use a polyethylene terephthalate – isophthalate copolymer (thus an aromatic polyester obtained by polycondensation of a copolyethylene terephthalate in which at least 1 mole percent of the units

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deriving from terephthalic acid are substituted by units derived from isophthalic acid) as the outer layer of the heat sealable film in Roulin et al, Hayashi and Nankee in order to obtain a package which is heat sealable at a lower temperature.

The Encyclopedia of Polymer Science and Engineering fails to disclose an aromatic polyester obtained by polycondensation of a copolyethylene terephthalate in which 10 mole percent of the units deriving from terephthalic acid are substituted by units derived from isophthalic acid and 10 mole percent of the units deriving from terephthalic acid are substituted by units derived from isophthalic acid. However, The Encyclopedia of Polymer Science and Engineering discloses a copolyethylene terephthalate in which at least 1 mole percent of the units deriving from terephthalic acid are substituted by units derived from isophthalic acid as discussed above. Therefore, the amount of units derived from isophthalic acid would be readily determined through routine optimization by one having ordinary skill in the art depending on the desired end use of the product. It therefore would be obvious for one of ordinary skill in the art to vary amount of units derived from isophthalic acid, since amount of units derived from isophthalic acid would be readily determined through routine optimization by one having ordinary skill in the art depending on the desired end result as shown by The Encyclopedia of Polymer Science and Engineering *In re Boesch and Slaney*, 205 USPQ 215 (CCPA 1980).

ANSWERS TO APPLICANT'S ARGUMENTS

7. Applicant's arguments regarding the 35 U.S.C. 112 second paragraph rejection of Claims 16, 18, 25 and 36, 35 U.S.C. 103(a) rejection of Claims 16 – 17 and 23 as being unpatentable over Colombo (U.S. Patent No. 5,300,748) in view of Hayashi (U.S. Patent No. 5,000,991), 35

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U.S.C. 103(a) rejection of Claims 18 – 21 and 25 – 27 as being unpatentable over Colombo (U.S. Patent No. 5,300,748) in view of Hayashi (U.S. Patent No. 5,000,991) and further in view of Hubbard et al (WO 97/47694) and 35 U.S.C. 103(a) rejection of Claims 28 and 34 as being unpatentable over Colombo (U.S. Patent No. 5,300,748) in view of Hayashi (U.S. Patent No. 5,000,991) and further in view of The Encyclopedia of Polymer Science and Engineering. (Volume 12, page 214, 1985), of record in the previous Action, have been considered and have been found to be persuasive. The rejections are therefore withdrawn. The new 35 U.S.C. 103(a) rejection of Claims 16 – 17, 23 – 24, 29 – 33 and 35 – 37 as being unpatentable over Roulin et al (U.S. Patent No. 5,508,075) in view of Hayashi (U.S. Patent No. 5,000,991) and Nankee et al (U.S. Patent No. 4,543,364), 35 U.S.C. 103(a) rejection of Claims 18 – 21 and 25 – 27 as being unpatentable over Roulin et al (U.S. Patent No. 5,508,075) in view of Hayashi (U.S. Patent No. 5,000,991) and Nankee et al (U.S. Patent No. 4,543,364) and further in view of Hubbard et al (WO 97/47694) and Claims 28 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roulin et al (U.S. Patent No. 5,508,075) in view of Hayashi (U.S. Patent No. 5,000,991) and Nankee et al (U.S. Patent No. 4,543,364) and further in view of The Encyclopedia of Polymer Science and Engineering. (Volume 12, page 214, 1985) above are directed to amended Claims 16 – 21 and 23 – 37.

Applicant's arguments regarding the 35 U.S.C. 112 second paragraph rejection of Claim 17, of record on page 3 of the previous Action, has been carefully considered but has not been found to be persuasive for the reasons set forth below.

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Applicant argues, on page 5 of Paper No. 23, that the amendment to Claim 17 overcomes the rejection. However, the claim still contains the limitation 'the closure,' for which there is insufficient antecedent basis.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc Patterson, whose telephone number is (703) 305-3537. The examiner can normally be reached on Monday through Friday from 8:30 AM to 5:00 PM. If attempts to reach the examiner by phone are unsuccessful, the examiner's supervisor, Harold

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Pyon, can be reached at (703) 308-4251. FAX communications should be sent to (703) 872-9310. FAXs received after 4 P.M. will not be processed until the following business day.

Marc A. Patterson, PhD.

Marc Patterson
Art Unit 1772

[Signature]
HAROLD P. PION
SUPERVISORY PATENT EXAMINER
1772 11/3/03